GALVESTON BAY FOUNDATION

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RE: Permit Application No. 23418

Dear Mr. Fordyce:

The applicant, Leroy Stanley, proposes to construct a barge fleeting facility along approximately 650 feet of shoreline. The project is located within Old River, adjacent to the San Jacinto River, at 17818 Riverside Drive, south of Interstate 10, in Channelview, Harris County, Texas. The project involves 4.0 acres of dredging Old River, including 1.6 acres of wetlands, to –14 feet MLT and the discharge of fill material into a 0.3-acre existing slip. The disposal area will be located in the existing slip and in an upland location adjacent to the project site. The applicant proposes to compensate for impacts to 1.6 acres of wetlands and 2.1 acres of shallow open water by creating 3.6 acres of wetlands and 0.4 acre of intertidal channels at an existing wetland mitigation site under Permit 19284.

The San Jacinto River is an important, primary tributary to the upper Galveston Bay system. In addition to providing habitat, wetlands (including emergent, mid, and high marsh) present along this area store floodwaters and stabilize stream crests, helping to control flood damage and filter out pollutants that might otherwise reach Galveston Bay. Water and nutrients supplied by the upper portions of the river flow into the fringe wetlands along the lower San Jacinto and Old River into Upper Galveston Bay, which along with the open shallow bottom provide important nursery habitat for numerous fish and bird species. Regionally important fishery species dependant on these combined resources include Gulf menhaden (*Brevoortia patronus*), Gulf killifish (*Fundulus grandis*), Sheepshead minnow (*Cyprinodon variegatus*), Atlantic croaker (*Micropogonias*

undulates), seatrout (*Cynoscion sp.*), white shrimp (*Litopeneaus setiferous*), brown shrimp (*Farfantepenaeus aztecus*), grass shrimp (*Palaemonetes pugio*), and blue crab (*Callinectes sapidus*). Colonial waterbird species including egrets and herons feed along the shoreline, particularly during low tides when the mudflats near the shoreline are exposed. Sheltered mudflats along the entire shoreline provide important forage habitat for these species, as they are rich in benthic organisms that are important to the detritus-based food web.[1] Wetlands and the vegetated shoreline are valuable filtering zones for non-point source pollutants such as organics (i.e.: oil & grease, pesticides, and others) from adjacent uplands, protecting downstream waters from excessive loading[2]; land use patterns within a watershed can highly influence the water quality of an estuary.[3,4]

The Galveston Bay Foundation has reviewed permit application 23418. The Foundation is concerned that the water body in which the work is proposed, TCEQ segment 1001, has been identified by the TCEQ as not meeting water quality standards. This water body is currently on the 303(d) list of impaired water bodies for PCBs in fish tissue, and dioxin in fish and crab tissue, respectively. These contaminants frequently partition to the sediments, which subsequently become a source of exposure for animals at all levels of the food web exposed to them directly or through bioaccumulation.[5,6,7]

In light of this information, the Foundation recommends that the applicant:

1. Specify methods for controlling and treating the return (decant) water associated with the dredge material so that it will not impact adjacent waters.
2. Use a silt curtain or similar barrier in the water (around the submerged work area) when dredging to prevent migration of suspended material downstream during construction as recommended under Texas Coastal Management Program dredging policy – 31 T.A.C. Part 16 Chapter 501 Subchapter B Rule 501.25 [b4].

Additionally, we understand from communication with the USFWS that mitigation work done under a previous permit application (DA Permit 19284) at the proposed mitigation

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[1] Armstrong, N.E. "The Ecology of Open-bay Bottoms of Texas: A Community Profile." US Fish and Wildlife Service Report 85(7.12). May 1987. 104 pages.

[2] State of the Bay; Characterization of an Ecosystem. Galveston Bay Estuary Program Publication GBNEP-44, Shipley and Keisling, Eds. 1994. 232 pages

[3] Lerberg, Scott B, Holland, A. Frederick, and Denise Sanger. "Responses of Tidal Creek Macrobenthic Communities to the Effects of Watershed Development." Estuaries. Vol. 23, No. 6. December 2000. Pages 838-853.

[4] The State of the Bay- A Characterization of the Galveston Bay Ecosystem, 2nd Ed. Galveston Bay Estuary Program Publication GBEP T-7. Lester and Gonzalez, Eds. 2002. 162 pages.

[5] Brown, S.S., Gaston, G.R., Rakocinski, C.F., Heard, and R.W. Heard. "Effects of Sediment Contaminants and Environmental Gradients on Macrobenthic Community Trophic Structure in Gulf of Mexico Estuaries." Estuaries. Vol. 23, No. 3, pp. 411-24. June 2000.

[6] Carr, R.S., Chapman, D.C., Howard, C.L., and J.M. Biedenbach. "Sediment Quality Triad Assessment Survey of the Galveston Bay, Texas System." Ecotoxicology. Volume 5, No. 6, pp. 341-64. 1996.

[7] Guillen, George, Whaylen, Leslie, Broach, Linda, and Steve Smith. "Evaluation of Sediment Quality in the Vicinity of Permitted Discharges and Selected Land-use Practices: Galveston Bay." Unpublished TNRCC Report. January 27, 1999. 189 pages.